TRACTION PROGRAM

1920

P. R. T. PROPOSALS

CAR SERVICE AND TRACK EXTENSIONS

PRESIDENT MITTEN'S PLAN

FOR

SECURING INCREASED REVENUE

SYNOPSIS OF TALKS BEFORE MAYOR MOORE'S
TRANSIT COMMITTEE, APRIL 19, 23, 26, 30, 1920
TOGETHER WITH CERTAIN AMPLIFICATIONS

MAY, 1920

TRACTION PROGRAM

P. R. T. PROPOSALS

1920

President Mitten, at his first appearance before Mayor Moore's Transit Committee, April 19, 1920, said that, in speaking for P. R. T., he was prepared to explain and discuss, with the committee, the present—the immediate future—and the far future—of transit, but that he would at the outset confine his statement entirely to what could be done in 1920 to meet the traffic requirements, supplementing in effect the chapters contained in the 3-cent Exchange Case booklet, the Talk-It-Over meetings and the annual report of P. R. T. for the year ended December 31, 1919.

TRACK EXTENSIONS

Germantown Avenue is to be supplied with center-exit nearside car service by way of 10th and 11th Streets, which, if terminated at Filbert Street, will provide terminals as conveniently located as those of the Reading and Pennsylvania railroads, and supply a more desirable service to the workingman, considering the greater frequency of cars and the rate of fare. (Loops on Gorgas Lane and at Bethlehem Pike.)

Overbrook connection to the elevated, now limited in service by the stub terminal at Market Street, will be adequately served when connected with Walnut-Chestnut line by way of Spruce Street and 63rd Street. (Loop at Overbrook and track extension from 63rd and Market to 60th and Spruce.)

The Boulevard extension is determined as being most necessary. It will permit of a clearing up of Frankford's internal service, accommodate the immense Sears-Roebuck and other industrial plants, and also afford the much needed connection between the Frankford and Nicetown manufacturing districts in such a way as to insure a rapid development of the intervening acres of land suitable for building purposes, with a consequent greatly increased taxable value to the City. (Adams Avenue, Roosevelt Boulevard, Wyoming Avenue, Old York Road, Hunting Park Avenue, 29th Street and to connection with Allegheny Avenue; also connecting track on Erie Avenue from 16th Street to Hunting Park Avenue.)

Roxborough connection to Germantown, by way of Walnut Lane, with present Chelten Avenue line, is now being considered, as is also the direct line service for Glenside and East Germantown district by way of Champlost Street to York Road, with North 5th Street and Chew Street extensions—the two former particularly being worthy of earliest attention.

The moves, now described, are all moves in a general direction, which do not interfere with the bigger plan to be developed following the 1920 program.

ESTIMATED COST (MAY, 1920) OF SURFACE EXTENSIONS AND TERMINAL LOOPS

	Track Miles	Cost
Bethlehem Pike loop	.10	$ 80,000
Gorgas Lane connection and loop	.30	200,000
Spruce Street—63rd Street and loop	1.30	160,000
Boulevard Line—including Nicetown connection	8.50	1,200,000
Roxborough double track and loop	2.43	250,000
Champlost Street—Ogontz to York Road	1.08	55,000
Fifth Street to Chelten	1.85	150,000
Sansom Street—8th to 22nd Street and rebuild	.89	70,000
Filbert Street connections and rebuild	.42	30,000
Race Street—2nd to 22nd Streets and rebuild	.70	80,000
Total	17.57	$2,275,000

PLANS FOR FINANCING

The proceeds of the $6,000,000 Equipment Trust Loan will be used as follows:

About $3,000,000 is necessary to retire already issued car trust certificates. $1,000,000 is required to pay back a temporary loan which P. R. T. made last fall to pay for the capital expenditures of last year. The other $2,000,000 is to be used in modernizing equipment on 300 additional cars to make them fit for service, providing terminal loops, etc., and in relaying 20 miles of track with heavier rails.

The manner of financing extensions, as provided in the 1907 agreement, is by issuing mortgage bonds guaranteed by P. R. T., and which, it is expressly stipulated, shall in no case be sold for less than par. It is obvious that such bonds under present market conditions would be salable only to such an extent as they might be purchased by those who expect to reap an immediate benefit from the building and operation of the desired extensions.

CAR SERVICE

It is now apparent (May 27, 1920) that it will not be possible to have the Frankford Elevated in operation in time to handle the traffic of next winter. Therefore it must now be determined what can be done to meet the traffic conditions that it is known will exist during the Christmas peak of 1920.

As clearly set forth in P. R. T. annual report for 1919, Philadelphia's street car system will be much overtaxed during the winter of 1920-1921, and nothing should be permitted to interfere with the development of the existing facilities to the utmost of their maximum carrying capacity. There should be intelligent co-operation between the City and the company to accomplish the two things remaining which offer the largest measure of immediate relief, viz:

1. Rearrangement of streets and traffic with enforcement of traffic regulations to avoid unnecessary delays to street cars.
2. Uncorking the bottle-neck of Market Street traffic at Penn Square.

DELIVERY DISTRICT CAPACITY

Surface lines are now being operated to the maximum possible in the delivery district during the rush hours, under present conditions of street traffic. Additional cars introduced into the business district beyond the point of track capacity only serve to increase congestion, as evidenced by the long strings of waiting cars on Market Street, westbound, during the rush hours, following the slightest interruption to traffic.

Increased track capacity in the delivery district is the greatest present need in providing sufficient car capacity to quickly lift all of the would-be passengers out of the delivery district, during the evening rush hours, and to this end the following suggestions are made:

Walnut Street has a particularly aggravated condition immediately west of Broad Street, due to hotel vehicular traffic, but is reasonably adequate to accommodate ordinary street-car and vehicular traffic, westbound. Walnut Street cannot, however, accommodate the increased vehicular traffic and the more than double street-car service required to handle rush hour traffic.

It is proposed to make Sansom Street what may be called a homegoing street. This is the plan. There is a track on Sansom Street from 8th Street to 19th Street. On 22nd Street there is a double track north and south, which connects with Walnut Street to the south and with the double track on Chestnut Street over the bridge to the north. It is proposed to extend the Sansom Street track from 19th to 22nd and put in a double track branch-off. The regular all-day service on Walnut Street need not then be increased in the evening, but in lieu thereof an equal or greater service can be put on Sansom Street, westbound, in the evening rush hour. There is adequate capacity eastbound on Chestnut Street to bring the empty cars down at that hour and swing them through 8th Street on to Sansom Street.

The Chestnut–Walnut Street people, as well as all others, will be better accommodated by this use of Sansom Street, and as the homegoing speed at which the cars can operate will be so much greater, because it has not the vehicular interference that Walnut Street has, there should be no difficulty in getting the people to go to Sansom Street to take advantage of the extra service. Since Sansom is a dead street, not operated by a regularly operated line, it gives opportunity to bring the trippers down in there and hold them for the load, and just shoot them out as the people come along.

When the cars get to 22nd Street on Sansom, those that go out Walnut Street will drop down to 22nd and Walnut, and Walnut Street at that point will have been relieved of the car lines which leave Walnut Street southbound at Rittenhouse Square. The cars going to the northern district, as those along Spruce

Street, can just swing up and take the double track over Chestnut Street bridge and proceed with their homeward bound passengers. This move will be equivalent to adding 10 cars to the service during the rush hour.

Arch Street vehicular traffic, westbound, during the rush hour seriously delays the movements of street cars. To overcome this delay consideration is now being given to the use of Race Street between Front and 22nd Streets for all eastbound traffic during rush hours, with westbound vehicular traffic on Arch Street confined to the eastbound track, the westbound track being kept entirely clear for the use of street cars. This move will be equivalent to 12 additional cars during the rush hour.

Since the desire here is to increase the width of the business district, it might be advantageous to operate in one direction on Race Street and in the other direction on Arch Street all day long, to the end of making Race Street a business street, which it would then become.

When the Parkway was built, P. R. T. temporarily removed its tracks from Race Street, between about 19th Street and 16th Street, but retained its franchise rights, so that these tracks can be restored when required.

Market Street over-congestion will be relieved by diverting Routes 16 and 21 from Market Street to Filbert Street west of City Hall, as suggested by Superintendent Mills and recommended by the Public Service Commission engineer. This, with the turning of all cars in excess of East Market Street capacity at City Hall loop, will be equivalent to adding 20 additional cars during the rush hour.

Market Street will be further relieved by turning the trippers on 12th and 13th at Filbert Street instead of Sansom Street. This will serve to help clear Sansom Street for the homegoing service and give the people a chance, by walking a short distance, to pick up an empty car on Filbert Street, at 12th and 13th, and at City Hall on Market Street.

Two-car trains on 12th and 13th, 15th and 16th, with the turning of tripper service north of Market on Filbert Street, will relieve Market Street of much crossing congestion and will serve to greatly increase the track capacity of these north and south lines. This shortened tripper service will require 4 cars less to supply present service during the rush hour.

Maps (page 7) as presented show the present and proposed routing in the delivery district.

Each colored band represents a route and the width of the band represents the comparative number of cars per hour. The dotted sections of line indicate that the street in that section is overloaded; that is, that there are at present more cars scheduled than can be properly operated through the street. These overloaded streets are: Market Street east of 17th; 12th and 13th Streets north of Sansom; and Chestnut-Walnut Streets east of 9th.

The proposed changes aforementioned will relieve all of this overloading except on 12th and 13th Streets north of Filbert, and this overloading will be cured when the Frankford Elevated is placed in operation, at which time the service on the surface lines will be much diminished because of diverted traffic.

Skip-stop savings produced for the winter of 1919 the equivalent of 74 cars. The remaining economies yet to be made effective on this account will be the equivalent of adding 8 additional cars during next winter, which, added to the 46 car capacities saved by rerouting and the 300 reconstructed cars, makes a total of 354 additional car capacities possible of accomplishment by P. R. T. for use during the winter of 1920.

CAR CAPACITIES

872,000,000 passengers were carried during 1919 by a combined elevated and surface car capacity equivalent to 2,707 effective surface cars. 322,000 passengers were therefore carried per surface car capacity during 1919.

1,000,000,000 passengers will be carried during the next 12 months, under present conditions, with combined elevated and surface car capacities composed of the 2,707 car capacities usable last year, added to which are the 300 reconstructed cars in company shops, and the 54 added car capacities from proposed rerouting and terminal changes, making a total of 3,061 effective surface car capacities for the winter of 1920.

In considering the matter of car service it must not be overlooked that a greater revenue will be required by P. R. T. to meet increasing costs, to provide the additional facilities now required, and to later support City's investment in Frankford "L" and such other high speed lines as may be later undertaken.

With the double need of increased car capacity and increased revenue in mind, a careful analysis of present methods and present charges to passengers for service rendered becomes of greatest interest.

Upon the estimated basis of 1,000,000,000 passengers to be carried during the next 12 months, 170,000,000 passengers would, it is estimated, be carried on free transfers, if present conditions remain

unchanged. Approximately 85,000,000 of these free transfer passengers ride only because it is free, and for such short distances that any charge for transfers would cause these riders to walk rather than pay, so that if a charge were made for all transfers, the semi-wasted car capacity now used by these 85,000,000 passengers per year could be made available for the use of passengers who must depend upon our cars for their necessary rides.

The forecast that 50% of the 170,000,000 free transfer passengers would walk, as against paying any price for the transfer privilege, is based upon the estimate that 85,000,000 of the transferring passengers ride a distance of less than ¾ mile.

If a charge were made for transfers, this estimated falling off in short transfer riding would result in transfers between surface lines decreasing 45% and transfers between surface and elevated lines decreasing 70%, of which 30% would be diverted to the direct surface routes, still bringing passengers to the delivery district for a 5-cent fare. It is estimated that the remaining 40% would walk to and from the elevated in preference to paying for the transfer.

PRESENT		PROPOSED	
Free transfers	17.0% of all passengers	Free transfers 50% walking leaving 50% to ride	8.5% of all passengers
3c exchanges	6.0% " " "	3c exchanges (not affected)	6.0% " " "
Free & 3c exchanges	23.0% " " "	3c exchanges	14.5% " " "

85,000,000 passengers approximate the increased number to be carried by P. R. T. this year in excess of the number carried in 1919. If, therefore, all transfers be charged for, the number of passengers to be carried this year would be but little in excess of the number carried in 1919, while the advantages brought about by improved routing, increased terminal facilities, etc., as heretofore described, would be all to the good.

The comparative results are as follows:

	1919 Actual	1920 Estimated Transfers and Exchanges as Now	1920 Estimated Universal 3c Transfer
Passengers Carried	872,000,000	1,000,000,000	915,000,000
Effective Car Capacities	2,707	3,061	3,061
Passengers per Car Capacity per annum	322,000	327,000	299,000

THE QUESTION OF INCREASED FARES

The Philadelphia Rapid Transit Company requires increased revenue not only to meet the increasing costs of operation, but also to place itself in the best position possible to handle its rapidly increasing business and to later operate City built lines.

The amount of increased revenue required is substantial and the future so uncertain that any and every move made in the direction of increased fares should be given most careful consideration, with full appreciation of future needs.

The Philadelphia Rapid Transit Company's advance in prosperity during the past nine years has been based upon a well defined policy of serving the public as satisfactorily as its limited facilities would permit, endeavoring at all times to make its system best function as a public carrier by increasing the number of rides per person contained in the City's population.

445,599,000 passengers were carried on P. R. T. cars in 1910. The estimate then made of normal increase to be expected was 4% per annum. This estimate was based upon the well accepted formula that the average increase in street car riding is double the increase in population served, which for Philadelphia was estimated at 2% per annum. This increase of 4% per annum was expected to produce 634,226,331 passengers for 1919; the number actually carried in 1919, however, was 872 million passengers, of which 238,529,066, or 53.5% added passengers represents the actual increase over that which it was estimated would be carried under normal or usual conditions.

The car rides per annum, for each person in the population to be served, were increased from 288 rides per annum in 1910 to 425 rides per annum in 1919, this being an increase of 137 rides per annum per person in the population to be served. This increase in the riding habit was largely brought about by adjustment of car schedules to better serve the short riders, improved salesmanship on the part of the car crews, and a much more inviting kind of car to ride in than was possessed by the company prior to the incoming of the present management.

The use of public streets for transit purposes is granted in order that by means of a public carriage (the street car) greater use can be made by the public of its streets for purposes of public thoroughfare.

P. R. T., as a public carrier, must therefore strive to carry the greatest possible number of persons, even though a lesser number would produce a greater revenue.

P. R. T. has this duty to perform, and also has transportation to sell.

P. R. T. should, now that increased revenue is required, approach a decision as to the manner in which this increase may be secured, without prejudice, and with the idea of properly adjusting the increased charge, to be borne by the public, to the end that those receiving the most shall pay the most, and that the fewest passengers possible shall be disturbed or discommoded by the changes to be made.

P. R. T., under present conditions, must be prepared to carry a billion passengers during the coming year. Upon this basis, at present rates, passengers and earnings would be as follows:

BASE—1,000,000,000 PASSENGERS PER YEAR

		Passengers	Revenue
5-cent Fares	76%	760,000,000	$38,000,000
3-cent Exchanges	6	60,000,000	1,800,000
Free Transfers	17	170,000,000	.....
Employes' Tickets, etc.	1	10,000,000	.....
	100%	1,000,000,000	$39,800,000

760 million, or 76% of the passengers carried, pay the 5-cent fare. These 5-cent passengers must not be disturbed in such a way as will serve to lessen the number of short rides which are now the only profitable business remaining, and in the securing of which so much work on the part of both management and men has been expended.

60 million passengers, or 6% of the total passengers carried, pay 3 cents for an exchange ticket entitling them to transfer to a connecting car.

170 million passengers, or 17% of the total passengers carried, transfer free. These free transfer passengers cost just as much to carry as do those now paying 3-cent exchange for the same privilege of transfer. It is estimated that 50% of these free transfer passengers ride only because of the fact that it costs them nothing, and that upon a charge being made for a transfer, they would walk the short distance necessary to secure a direct ride for 5 cents.

The 85 million passengers remaining to be carried, of the 170 million passengers carried free, could, it is thought, be well expected to pay 3 cents for the privilege of the transfer ride, the same as is being done by 60 million of their fellow passengers for similar service. This adjustment would at once require that all transfer passengers make the same payment for the same service, and while requiring additional payment from but 8.5% of the total passengers carried, would at the outset produce added revenue approximating $2,500,000 per annum.

The overcongestion of transfer passengers in the delivery district requires the elimination of exchanges in this congested space, in order to fully conserve the use of the delivery district capacity for terminal purposes. The measure of the service possible to be given on all lines is limited by the terminal capacity of the delivery district. The result following this move, made for the protection of capacity, will be the payment by passengers of 5 cents as between lines terminating in the district, but without charge for the privilege of riding directly through the district in cars so routed. The additional revenue from the extra 2 cents then collected (being the difference between the 8-cent exchange and the two 5-cent fares then necessarily paid by passengers transferring within the limits of the delivery district) is estimated to be $500,000 per annum, while the added relief from congestion following this move will be of almost incalculable benefit to the traveling public.

$3,000,000, representing the sum thus obtainable by the making of a universal 3-cent charge for transfers, and the elimination of exchanges in the delivery district will, it is estimated, provide sufficient revenue to meet such improvement costs as are chargeable to earnings under Public Service Commission rulings, and in addition safely meet P. R. T. present charges and increased operating expenses, including the increased wage rate which is based on a maximum of 65 cents per hour for trainmen.

The establishment of a universal 3-cent transfer charge does not limit the possibilities of increased fare as may be later found necessary, but as compared to a horizontal increase of fares at this time it provides $3,000,000 of earnings secured through equalization of the fares now paid by all classes of passengers, leaving the way open to such further increases as may later be found necessary.

If, on the other hand, a horizontal increase in fare is considered, a corresponding increase in revenue could not be secured without giving up the basic 5-cent fare and increasing to a flat fare of perhaps 8 cents per passenger, which in itself would make necessary the relinquishment of the present 3-cent exchange revenue and permit a greater abuse of the uneconomic system of free transfers. P. R. T. has been built up to its present efficiency by increasing the short riding habit, as evidenced by the fact that the population served use the cars so much more freely as to produce 137 more rides per capita per annum than in 1910. This added riding alone represents 225,000,000 revenue passengers per year, many of whom are short distance riders and would, therefore, be most easily influenced to return to the walking habit by the exaction of a less convenient fare.

Establishment of a horizontal increase in fare would destroy much of the short riding which has been so industriously encouraged by the present management. This additional business, so carefully worked up from the stagnant condition of transit traffic which prevailed in Philadelphia prior to 1910, must not be jeopardized by a reversal of policy at this time.

BASIC 5c-FARE

A continuation of the basic 5-cent fare is the only sure way to first attract and then retain the profitable short ride business.

Dr. Thomas Conway, Jr., stated that this coincided exactly with his whole idea in the matter of urban fares. "The unit 5-cent fare," said Dr. Conway, "will eventually prevail. The difficulties of working that out in practice are as clear to you as they are to me, but I think we all stand together on that and I want to go on record to that effect. We want a minimum fare for a short ride, even assuming that you have to charge more than 5 cents for a ride of indefinite length."

The present average fare of 3.98 cents may be greatly increased. It is impossible to now estimate what the average fare is going to be if wages and expenses continue to rise. There will, however, always be a ride in Philadelphia that should be had for a 5-cent piece.

It is proposed that the necessary tariffs be now filed with the Public Service Commission eliminating all free transfers, stopping the use of 3-cent exchange tickets in the delivery district, and making the 3-cent charge for so-called exchange tickets, or transfers, universal.

T. E. MITTEN,
President.

Philadelphia,
May 27, 1920.

Digitized by the Internet Archive
in 2017 with funding from
This project is made possible by a grant from the Institute of Museum and Library Services as administered by the Pennsylvania Department of Education through the Office of Commonwealth Libraries

https://archive.org/details/tractionprogram100phil

DIAGRAMS

CARS PER HOUR II

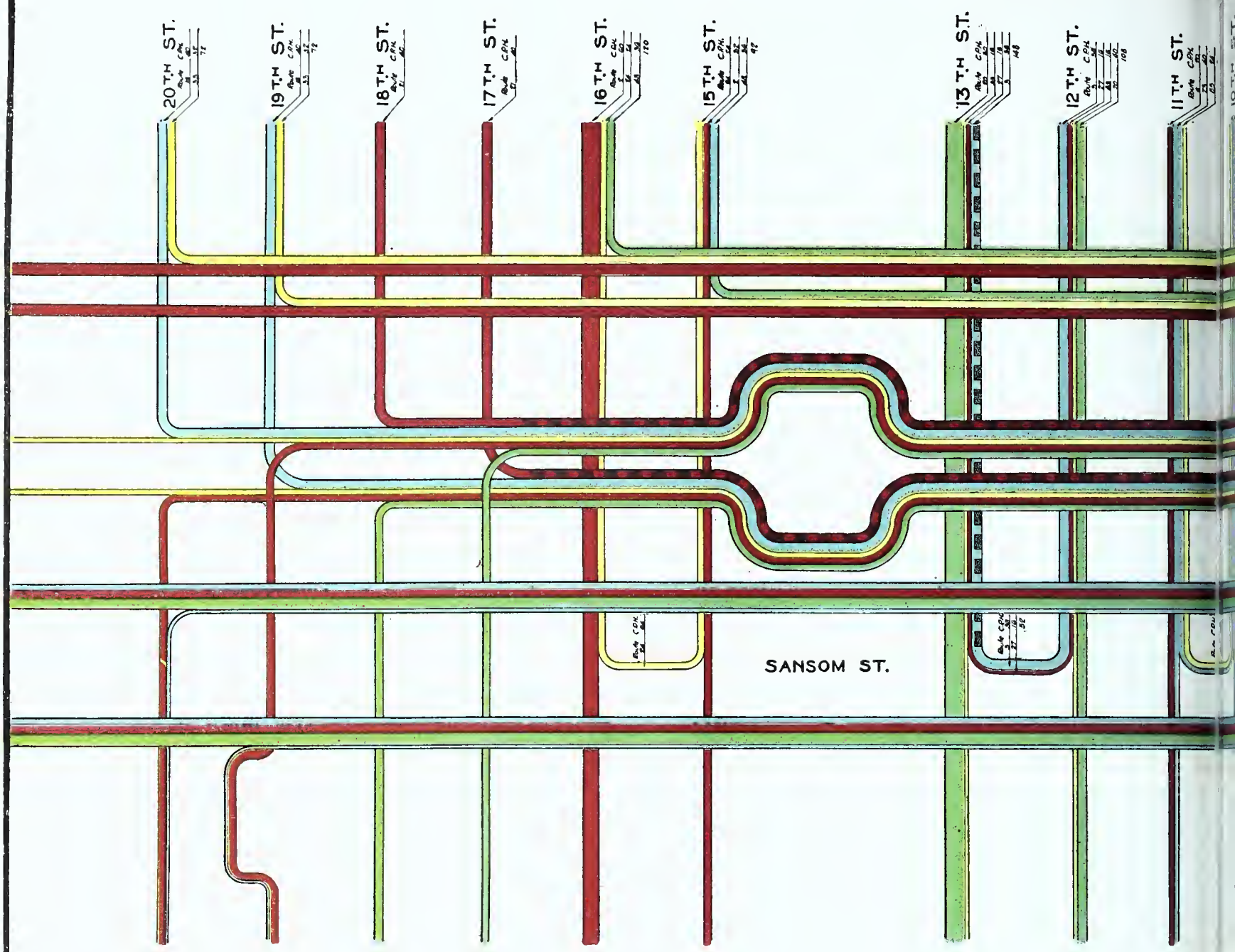
AT EV

Cars per hour

200 0 200 400

TRACK CAPACI

PRESENT ROUTI



PROPOSED ROUT

Note:—Track overload only on 13t S
of Traffic to Frankford Eva
Track Capacity on other Part

AM SHOWING

N BUSINESS DISTRICT

ENNG PEAK

SCALE

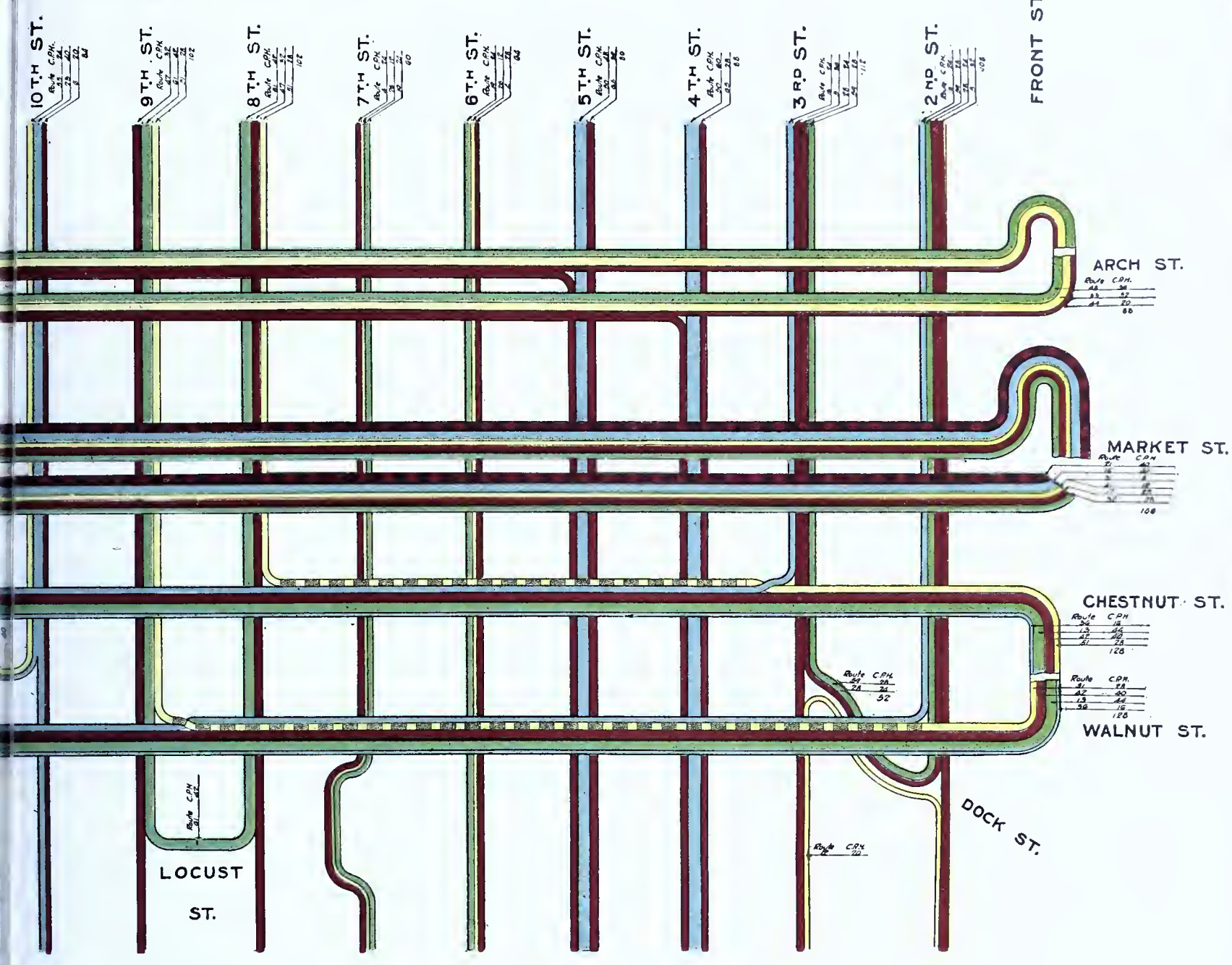
Feet

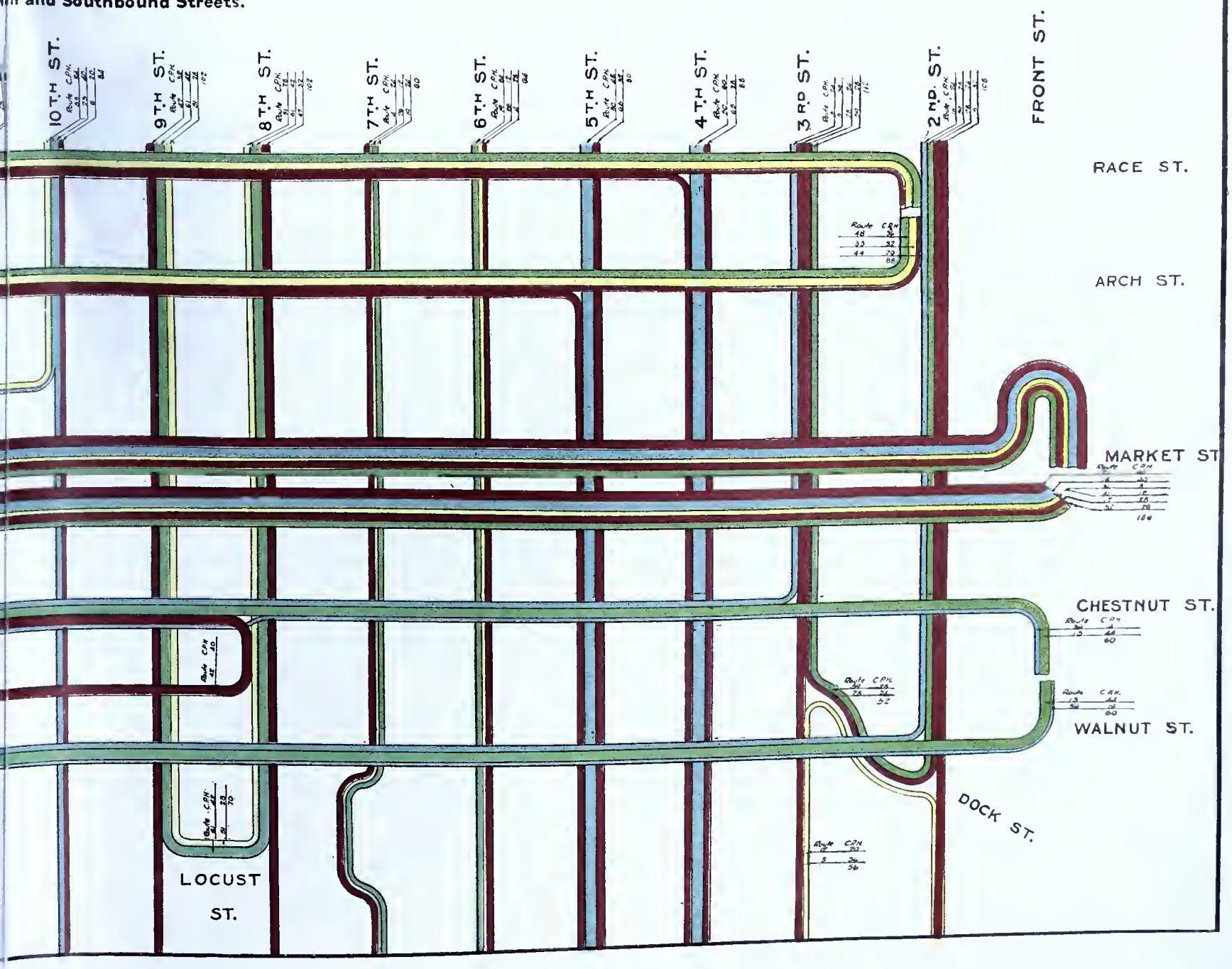
200 0 200 400

Y 20 CARS PER HOUR

Overload

N; AS OF APRIL 1920



TNG—1920 PROGRAM

Street. This will be removed by Diversion
Elated which will also leave much unused
th and Southbound Streets.